

NAME _____

PERIOD _____ DATE _____

FINDING THE LINE OF BEST FIT

- 1) **Ice Cream.** For 1999 through 2004, the percent, p , of low-calorie and/or low-fat ice cream sold in the United States increased as shown in the table below. Approximate the line of best fit for this data. Let $x = 9$ correspond to 1999. If this were to continue, what percent of ice cream sold in 2005 will be low-calorie and/or low fat.

Year	1999	2000	2001	2002	2003	2004
Percent	6%	8%	12%	19%	25%	31%

- 2) **Disney.** The table below shows the annual revenue, y (in billions of dollars), for the Disney Corporation from 1997 through 2005. Let $x = 7$ represent 1997. Find the equation of the line that best fits this data. Use this equation to predict the annual revenue for Disney in 2006.

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005
Billions	\$22.5	\$23	\$23.4	\$25.3	\$25.2	\$25.3	\$27.1	\$30.8	\$31.9

- 3) **DVD.** The director of sales for a national distributor of CDs wants to predict future sales. Although such a prediction could be based on past sales alone, the sales director believes that sales are tied to the number of households that have a DVD player. The table gives the nationwide data on DVD households (in millions) and CD sales (in millions) for five consecutive years. Find the equation of the line that best fits this data. Use this line to predict the sales of CDs when the number of households that have DVD players hits 50 million

DVD Households	8.3	15	23.5	32.5	45.8
CDs	9.5	22	52	84	110

- 4) **Calories.** The table below shows the relationship between the total grams of fat and the total calorie count of several items sold at McDonalds. Find the line of best fit for the data and then use your equation to predict how many calories an item with 22 grams of fat will have.

Item	Total Grams of Fat	Total Calories
Hamburger	9	260
Cheeseburger	13	320
Quarter Pounder	21	420
Quarter Pounder with Cheese	30	530
Big Mac	31	560
Crispy Chicken	25	500
Grilled Chicken	20	440

- 5) **Walmart.** The table shows the annual revenue, y (in billions of dollars), for the Walmart Corporation from 1996 to 2004. Find the equation of the line that best fits this data. Let $x = 6$ represent 1996. Use this equation to predict the annual revenue for Walmart in 2005.

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004
Sales	\$93.6	\$104.9	\$118	\$137.6	\$165	\$191.3	\$217.8	\$244.5	\$285.5